

**WHAT IS CLAIMED IS:**

1  
2 1. A method for customizing a facial foundation at point of sale to a  
3 customer comprising:

4 (i) obtaining a reading of a customer's natural skin coloration by  
5 applying a means for measuring coloration in proximity to the skin;

6 (ii) transmitting the reading to a programmable means for  
7 selecting an optimal facial foundation formula by correlating the reading with  
8 one of a preprogrammed set of formulas;

9 (iii) transferring the selected preprogrammed formula as  
10 operating instructions to a formulation machine for automatically preparing the  
11 formula;

12 (iv) dosing together within the formulation machine a plurality of  
13 cosmetic chemical compositions including at least one pigment, the plurality of  
14 compositions being chosen in accordance with information provided by the  
15 selected preprogrammed formula; and

16 (v) delivering into a container the dosed formula to the customer  
17 as a facial foundation product.

18  
19 2. A method according to claim 1 wherein the means for measuring  
20 coloration can also measure at least one skin characteristic selected from the

1 group consisting of a customer's natural skin moisturization, oiliness, texture and  
2 irritation sensitivity.

3  
4 3. A method according to claim 1 wherein the means for measuring is  
5 a spectrophotometer.

6  
7 4. A method according to claim 3 wherein the spectrophotometer is  
8 formed with at least one light-emitting diode.

9  
10 5. A method according to claim 3 wherein the spectrophotometer  
11 measures visible wavelength light which interacts with the skin.

12  
13 6. A method according to claim 3 wherein the spectrophotometer  
14 measures infrared wavelength light which interacts with the skin.

15  
16 7. A method according to claim 1 wherein there are at least four  
17 cosmetic chemical compositions, each of which are contained in a separate  
18 dispenser, and the compositions being respectively a red, yellow, black and  
19 white monochromatic composition.

1 8. A method according to claim 7 wherein the monochromatic  
2 compositions or other non-monochromatic cosmetic chemical compositions  
3 include ingredients that are selected from the group consisting of emollients,  
4 sunscreens, moisturizers, perfumes, solvents, and wrinkling and skin-aging  
5 inhibitors.

6  
7 9. A method according to claim 1 further comprising the step of a  
8 customer inputting a modification to alter the selected optimal formula.

9  
10 10. A method according to claim 1 further comprising the step of  
11 assigning an identification mark to each customized facial foundation product,  
12 labeling on the container the mark, and storing the identification within the  
13 programmable means to permanently identify the customized facial foundation  
14 product with the customer.

15  
16 11. A method according to claim 10 wherein the marking is in the form  
17 of a bar code.

18  
19 *sub* 12. An apparatus for customizing a facial foundation product at point of  
20 *B1* sale to a customer, comprising:

21 (i) a means for measuring a customer's natural skin coloration

1 and for generating a signal conveying information on the measured natural skin  
2 coloration;

3 (ii) a programmable means for receiving the signal, for corre-  
4 lating the signal with one of a preprogrammed set of formulas, and for select-  
5 ing an optimal formula from the preprogrammed set; and

6 (iii) a formulation machine for preparing the facial foundation  
7 product comprising:

8 (a) a means for receiving the optimal formula as a set of  
9 operating instructions;

10 (b) a plurality of dispensers each containing a different  
11 cosmetic chemical composition including at least one  
12 pigment;

13 (c) a means for activating dosing to a common dosing  
14 chamber of certain of the cosmetic chemical  
15 compositions and at certain concentrations as deter-  
16 mined by the operating instructions; and

17 (d) a means for delivering the dosed formula into a  
18 container to the customer as a facial foundation  
19 product.

1. 13. The apparatus according to claim 12 wherein the means for  
2. measuring coloration can also measure at least one skin characteristic selected  
3. from the group consisting of the customer's natural skin moisturization, oiliness,  
4. texture and irritation sensitivity.

5.  
6. 14. The apparatus according to claim 12 wherein the means for measur-  
7. ing is a spectrophotometer.

8.  
9. 15. The apparatus according to claim 14 wherein the spectrophoto-  
10. meter is formed with at least one light-emitting diode.

11.  
12. 16. The apparatus according to claim 15 wherein the spectrophoto-  
13. meter measures visible wavelength light which interacts with the skin.

14.  
15. 17. The apparatus according to claim 15 wherein the spectrophoto-  
16. meter measures infrared wavelength light which interacts with the skin.

17.  
18. 18. The apparatus according to claim 12 wherein there are  
19. at least four dispensers separately containing a red, yellow, black and white  
20. monochromatic composition forming individual ones of the cosmetic chemical  
21. compositions.

1           19.    The apparatus according to claim 12 further comprising a means for  
2           the customer to input a modification to the signal generated by the measuring  
3           means.

4  
5           20.    The apparatus according to claim 12 further comprising a means to  
6           mark with an identification mark each customized facial foundation product  
7           and a means for storing a record of the mark within the programmable means  
8           so as to permanently identify with the customer the identification mark.

9  
10          21.    The apparatus according to claim 20 wherein the identification mark  
11          is a bar code.